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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,580	08/20/2003	Viggo L. Norum	03191/000N040-US0	5203
7278	7590	06/14/2005	EXAMINER	
DARBY & DARBY P.C. P. O. BOX 5257 NEW YORK, NY 10150-5257			HO, HA DINH	
			ART UNIT	PAPER NUMBER

3681

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/644,580

Applicant(s)

NORUM, VIGGO L.

Examiner

Ha D. Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 3-6 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-6, 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 9 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/10/05 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner. (See Attachment 2)
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/10/05 has been entered.
2. This Office Action is responsive to Amendment filed on 05/10/05. Claims 3-6 and 9-12 are currently pending.

### ***Specification***

3. The disclosure is objected to because of the following informalities: note in the Brief Description of the Drawings section, the descriptions of Figure 1 and Figure 4 are the same. However, the arrangements of the actuator shown in Figures 1 and 4 appear to be different. Similarly, the descriptions of Figures 3, 5 and 6 are the same while the cross-section of the actuators shown in Figures 3, 5 and 6 are different.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takei in view of Ouchi et al. (US 6,788,435) and Black (US 5,704,250).

The combination of Takei in view of Ouchi et al. and Black has been set forth in the Office Action mailed 11/10/04, paragraphs 6 and 7, i.e., Takei discloses in Figure 2 an actuator comprising:

a central actuating shaft (33) with a shift finger (31) and further comprising two sleeves (35 and 36) supported substantially concentrically on the actuating shaft (33) and arranged to be driven in mutually independent rotation about the actuating shaft (33), wherein two grooves (33a and 33b) of opposite helical pitch are arranged on the actuating shaft (33) and each of the sleeves (35 and 36) has at least one inward-directed guide pin (41) engaging one of the grooves (33a and 33b); two motors (59 and 60) driving the independent rotation of the two sleeves (35 and 36), each of the two sleeves being driven by one of the two motors;

wherein one of the two grooves has a clockwise helical pitch and the other of the two grooves has a counterclockwise helical pitch; the two grooves are arranged in adjacent axial sections of the shaft; and at least parts of the two grooves share an axial section of the shaft.

Takei does not disclose two reduction gear mechanisms, each being interposed between one of the two sleeves and one of the two motors.

Takei does, however, disclose two pulley mechanisms (56 and 57), each being interposed

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between one of the two sleeves (35 and 36) and one of the two motors (59 and 60). The pulley mechanisms act as speed reducers. Gear reduction mechanisms are a well known type of speed reducer, which composes pulleys and belt.

Ouchi et al teach that the reduction gear mechanism is composed of pulleys and belt (see col. 1, lines 49-55).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to define the pulley mechanisms of Takei being gear reduction mechanisms as taught by Ouchi et al since a reduction gear mechanism is a well known type of speed reducer, which composes pulleys and belt.

Takei in view of Ouchi et al. does not show each of the sleeves having an internal groove engaging with two outwardly directed pins on the actuating shaft.

Black discloses in Figure 3 an actuator comprising sleeves (54 and 56) having internal grooves engaging with outwardly directed pins (62 and 64) on the actuating shaft (16).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Takei by forming internal grooves on the actuating sleeves rather than external grooves on the actuating shaft as taught by Black in order to simplify the manufacturing procedure.

***Allowable Subject Matter***

6. Claims 3-6, 11 and 12 are allowed.

***Response to Arguments***

7. Applicant's arguments filed 05/10/05, with respect to claim 3 have been fully considered and are persuasive. The rejection of claims 3-6 has been withdrawn.

8. Applicant's arguments filed 05/10/05, with respect to claims 9 and 10 have been fully considered but they are not persuasive.

Applicant argues that *"neither Takei nor Black mentions a gear reduction mechanism in spite of its advantages over a pulley mechanism clearly demonstrates that the use of a gear mechanism cannot be called obvious"* page 7, lines 10-14.

Although Takei does not disclose a reduction gear mechanism, but Takei does disclose a pulley mechanism (56 or 57). Note that the pulley mechanism acts as a speed reducer, and a gear reduction mechanism is a well known type of speed reducer. The evidence of the fact that **the pulley mechanism is a reduction gear mechanism** is found in the reference to Ouchi et al'435, col. 1, lines 49-55.

***Conclusion***

9. This is a continuation of applicant's earlier Application No. 10/644,580. Claims 9 and 10 are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### *Communication*

10. Submission of your response by facsimile transmission is encouraged. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see M.P.E.P. 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check. Responses submitted by facsimile transmission should include a Certificate of Transmission (M.P.E.P. 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to  
the Patent and Trademark Office on \_\_\_\_\_

(Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and M.P.E.P. 502.02).

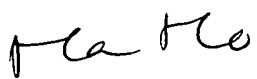
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Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ha D. Ho whose telephone number is **571-272-7091**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on **571-272-7095**.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HDH  
(571) 272-7091  
June 9, 2005

  
**HAHO**  
**PRIMARY EXAMINER**  
Art Unit 3681      5/9/05